

WHAT IS CLAIMED IS:

1. A process for upgrading a Fischer-Tropsch naphtha to obtain a gasoline component, the process comprising:
- 5 a) mixing a Fischer-Tropsch naphtha with a petroleum-derived naphtha to obtain a blended naphtha having a sulfur level of at least about 1 ppm;
- b) hydrotreating said blended naphtha producing a hydrotreated blended naphtha; and
- c) reforming said hydrotreated blended naphtha producing hydrogen by-product and a gasoline component having a research octane rating of at least
- 10 about 80.
2. The process of claim 1, further comprising recirculating at least a portion of said hydrogen-byproduct to hydrotreat said blended naphtha.
3. The process of claim 1, wherein said blended naphtha has a sulfur level of at least about 10 ppm.
- 15 4. The process of claim 1, wherein said blended naphtha is hydrotreated using a catalyst comprising at least one of a noble metal and a non-noble metal.
5. The process of claim 4, wherein said noble metal is selected from the group consisting essentially of Pd, Pt and combinations thereof.
- 20 6. The process of claim 4, wherein said non-noble metal is sulfided.
7. The process of claim 4, wherein said non-noble metal is sulfided with dimethyldisulfide.

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8. The process of claim 4, wherein said non-noble metal is selected from the group consisting essentially of Ni, Co, W, Mo and combinations thereof.

9. The process of claim 4, wherein said non-noble metal is non-sulfided.

5 10. The process of claim 1, wherein said gasoline component has a research octane rating of at least about 90.

11. The process of claim 1, wherein said gasoline component comprises at least about 10% aromatics.

10 12. A gasoline component having a research octane rating of at least about 80 produced by the process of claim 1.

13. A process for upgrading a Fischer-Tropsch distillate to produce at least one of a distillate fuel and a lube base stock component, the process comprising:

- 15 a) mixing a Fischer-Tropsch distillate and a petroleum-derived distillate to obtain a blended distillate having a sulfur level of at least about 1 ppm;
- b) hydrotreating said blended distillate producing a hydrotreated blended distillate; and
- c) upgrading said hydrotreated blended distillate to produce a distillate fuel component and/or a lube base stock component.

20 14. The process of claim 13, wherein said hydrotreated blended distillate is upgraded using at least one of a hydrocracking and a hydrodewaxing process.

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15. The process of claim 13, wherein at least a portion of the hydrogen used to hydrotreat said blended distillate and/or to upgrade said hydrotreated distillate is obtained by reforming a Fischer-Tropsch naphtha.

5 16. The process of claim 13, further comprising hydrotreating said blended distillate using a catalyst comprising at least one of a noble metal and a non-noble metal.

17. The process of claim 16, wherein said catalyst comprises a noble metal selected from the group consisting essentially of Pd, Pt, and combinations thereof.

10 18. The process of claim 16, wherein said catalyst comprises a non-noble metal that is sulfided in form.

19. The process of claim 18, wherein said non-noble metal is sulfided with dimethyldisulfide.

15 20. The process of claim 16, wherein said non-noble metal is selected from the group consisting essentially of Ni, Co, W, Mo and combinations thereof.

21. The process of claim 13, wherein said blended distillate has a sulfur level of at least about 10 ppm.

22. A distillate fuel component produced by the process of claim 13.

23. A lube base stock component produced by the process of claim 13.

24. A process for upgrading at least one of a Fischer-Tropsch naphtha and a Fischer-Tropsch distillate to produce at least one of a gasoline component, a distillate fuel or a lube base stock component, the process comprising the steps of:

- a) mixing a Fischer-Tropsch naphtha and a petroleum-derived naphtha to obtain a blended naphtha having a sulfur level of at least about 1 ppm;
- b) mixing a Fischer-Tropsch distillate and a petroleum-derived distillate to obtain a blended distillate having a sulfur level of at least about 1 ppm;
- c) producing a hydrotreated blended naphtha by hydrotreating said blended naphtha to remove oxygenates from said Fischer-Tropsch naphtha and to remove sulfur from said petroleum-derived naphtha;
- d) generating hydrogen by-product and a gasoline component comprising at least about 10% aromatics by reforming said hydrotreated blended naphtha;
- e) hydrotreating said blended distillate generating a hydrotreated blended distillate; and
- f) upgrading said hydrotreated blended distillate using said hydrogen by-product to produce a distillate fuel and/or a lube base stock component.

25. The process of claim 24, wherein said hydrotreated blended distillate is upgraded using at least one of a hydrocracking and a hydrodewaxing process.

26. The process of claim 24, wherein at least a portion of said hydrogen by-product is recirculated to hydrotreat said blended naphtha and/or said blended distillate.

27. The process of claim 24, wherein said blended naphtha has a sulfur level of at least about 10 ppm.

28. The process of claim 24, wherein said blended distillate has a sulfur level of at least about 10 ppm.

29. The process of claim 24, wherein said gasoline component has a research octane rating of at least about 80.

5 30. The process of claim 24, wherein said gasoline component has a research octane rating of at least about 90.

31. The process of claim 24, wherein hydrotreatment of said blended naphtha and said blended distillate is performed in a single hydrotreatment reactor.

10 32. The process of claim 24, wherein said blended naphtha and said blended distillate are hydrotreated with a catalyst comprising at least one of a noble metal and a non-noble metal.

33. The process of claim 32, wherein said noble metal is selected from the group consisting essentially of Pd, Pt and combinations thereof.

15 34. The process of claim 32, wherein said non-noble metal is selected from the group consisting essentially of Ni, Co, W, Mo and combinations thereof.

35. The process of claim 34, wherein said non-noble metal is sulfided.

36. The process of claim 35, wherein said non-noble metal is sulfided by adding sulfur during said process.

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37. The process of claim 36, wherein said sulfur is added by adding a sulfur-containing chemical.

38. The process of claim 37, wherein said sulfur containing chemical is dimethyldisulfide.

5 39. The process of claim 33, wherein said noble metal is not sulfided.

40. The process of claim 24, further comprising initially adding sulfur to said process so that any catalyst used during hydrotreatment is adequately sulfided.

10 41. A gasoline component comprising at least about 10% aromatics produced by the process of claim 24.

42. A distillate fuel produced by the process of claim 24.

43. A lube base feedstock produced by the process of claim 24.

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